

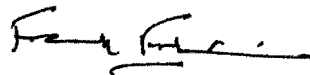
Where Middletown's Readers Were

A Look at the Processes in the Creation of a GIS Map

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Abstract

In following in Robert S. and Helen Merrell Lynd's footsteps, Ball State University began its own 'Center for Middletown Studies' in which both the past and present of Muncie, Indiana's sociology is further examined. One of the Center's subdivisions is the *What Middletown Read* program which is attempting to catalogue library patron information from the Muncie Public Library of the late 1800s and early 1900s into a digitized format. As an undergraduate fellow of this program, I attempt to visually display a select number of library patrons' residences through the technical skills I have garnered during my years at Ball State. Through the use of GIS (Geographic Information Systems) I map these library patron locations on a map of Muncie from the 1890s and draw conclusions for the reasons of such locations based on my own findings as well as the Lynd's. I include a journal describing my processes as well as some in depth highlights of notable Muncie residents from that era.

Acknowledgements

-I want to thank the staff at Bracken Library's Geospatial Center (namely Angela Gibson) for assisting me in the production of my GIS map

-I would also like to thank everyone involved in the "What Middletown Read" program for giving me the opportunity to participate in such an intriguing undergraduate fellowship.

The thesis project I undertook allowed me the opportunity to perform groundbreaking research while applying it to my own area of concentration. Through this project, I learned how to relate the intensive fact-finding of research into a truly fascinating yet useful outcome. This outcome is in the form of a GIS (Geographic Information Systems) map. The objective of the undertaking was to contribute a new element to the still-developing “What Middletown Read” project which is sponsored by the University’s Center for Middletown Studies. It is my hope, that any and all who are interested in the Midwestern reading habits at the turn of the 20th Century, will find this project to be of some worth. By viewing the spatial distribution of the residences of Muncie’s readers, there are many conclusions which can be drawn.

History of the Middletown Project

In 1923, sociologists Robert and Helen Lynd chose to examine Muncie, Indiana in their groundbreaking study on the changes experienced by a small American city in response to 20th-century modernization. Their publication, *Middletown: A Study in Modern American Culture*, very rapidly became a national bestseller and was read by both scholars and the general public alike. This look into the daily lives of Muncie’s citizens during the turn of the Century allowed the city to acquire the nick name ‘Middletown’ (‘Middletown Revisited’).

This 15 month study was designed by the Lynds “to define and measure the changes in the life (i.e., habits or behavior) of a small city over the critical period since 1890 as those changes affect the problem of the small city church,” and to conduct “a straight fact-finding study.” However, the study’s original goal was rather quickly altered

into a critique on Middletown's new consumer culture. The focus of the study was not approved by Rockefeller's Institute, which refused to publish the work. Harcourt, Brace, and World did publish the study, *Middletown*, in 1929 (as well as the follow-up work, *Middletown in Transition* in 1937), and it went on to become one of the most influential and popular books of the twentieth century. Over 32,000 copies alone were sold in the eight years of the Depression. This publication not only studied the growing self-consciousness of consumer society, but added to it as well. Historian Richard Wightman Fox has been quoted as saying, "That book had such an enormous and immediate impact on its thousands of readers because it caught the subtle tensions and confusions of the early years of consumer society in America." ('Middletown' Revisited).

A major conclusion that the Lynds reached through this study was that alienation and degradation of the worker were the inevitable results of industrialization. Service and craftsmanship suddenly demanded very little of a worker's personality as easily learned and routinized movements seemed to have wiped out many of the satisfactions that formerly accompanied a job (Jensen).

The intensive, anthropological studies carried out by the Lynds in their *Middletown* books make up quite the unique genre in American studies. Instead of the "reform-oriented community survey" that sociologists before the Lynds employed, the *Middletown* project allowed for a scientific study of culture. It is imperative that one understands the importance of their work in forming America's self-image (Jensen).

What Middletown Read

Ball State University has continued to build upon the research of Robert S. and Hellen Merrell Lynd through its Center for Middletown Studies. Among the various investigations funded by the Center for Middletown Studies, is the *What Middletown Read* project – the basis of my thesis.

By a stroke of serendipitous luck, a small wealth of the Muncie Public Library's records was discovered recently. These records, which date back to the 1890s through the first few years of the twentieth century, contain documentation of each library borrower as well as each book he/she borrowed. Using the vast information that these newly discovered ledgers provide - along with the 1900 Census and Muncie City Directory records - it is possible to paint a picture of the reading habits among the 'Middletowners'. Moreover, the *What Middletown Read* project is, at the time this thesis was written, in the process of becoming digitized. This database, when finished, will allow the user to search for a library patron and learn of his/her book borrowing transactions, which books they were, as well as socio-cultural information about the patron. The completed database will be a huge asset to the Center for Middletown Studies as well as to the continuation of the Lynds' idea. It should prove to be useful for all historians, both professional and amateur alike.

Journal Entries

9/21/06

Sometimes I consider myself to be one of the luckiest people. Certain things just seem to fall into my lap without me having to work too hard for them. My life has been relatively easy thus far with no real hardships to speak of. As a student, however, I've

always been somewhat of a perfectionist and I did study quite a bit to get A's throughout high school and college. Still, I do not generally like doing more work than I absolutely have to (I greatly value my free time). So when I got into the Honors College at Ball State University, I was grateful for the scholarship that came with it, but a little wary of the extra work that it would entail (namely, the big senior thesis project). I could have simply dropped out of the Honors College, but that would prove to be most disappointing to my parents, and as I had no minor, I really didn't have much else to fill my schedule with. This is where my luck comes in. By the time my senior year had rolled around, I'd bounced a few thesis topics off of a few people, but never got any really enthusiastic responses from my ideas. Well, when I was in my Shakespeare colloquium taught by Frank Felsenstein, I turned in an assignment early (an unknowing action which seemed to prove my industriousness). Then, Dr. Felsenstein asked if I was interested in joining the research team for the *What Middletown Read* fellowship. I hadn't really been searching for a job at all this year, and yet one seemed to have found me. I accepted the position and it was through this that my Honors senior thesis developed.

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1/11/07

I came up with the idea for my Honors Senior thesis through the fellowship I luckily acquired. I was really pretty clueless about what I was going to do until then; (I did meet with the Dean of the Honors College the spring semester of my junior year). My plan then was to "re-create" the globe. That is, to make a model of the globe, only upside down and with the lines of longitude and latitude reversed. I figured, who decided which

direction was north, anyway? People could still navigate just fine if all our compasses pointed south. I guess this was the geography major coming out in me. However, after the looks of confusion I received from the various people to whom I told my plan, what little confidence I had in this proposal was shaken.

So when my fellowship came through, I knew I had another shot at combining my geography skills with the creativity I gained from the Honors College. On top of this, it seemed that my thesis would be original and groundbreaking work which could actually be used to help future research (apparently, as I later learned, the upside down globe had been done before). To get my project underway, I needed to scan an old map of Muncie (the Archives and Special Collections in Bracken Library had a nice one from 1889) into the GIS program. The main purpose for doing so was because the streets on the modern map that GIS already had coded into it have changed quite some bit over the course of the 20th Century. Once that was completed, I needed to get the old Muncie Public Library patron address data from the What Middletown Read database entered into my GIS map. This is where I was lucky, *once again*, to have met Angela Gibson (the Geographic Information Systems specialist from Ball State's Geospatial Center) who helped me accomplish the very task.

§

2/23/07

It was such a relief to get that email from Angie Gibson yesterday informing me that the 'clean' data had been put up on the library's server. I'd been getting slightly anxious since March is in a week and I haven't even started on my huge ol' thesis. So

anyway, the very next morning, I high-tailed it over to Bracken library's Geospatial center to work with Ms. Gibson in setting up my GIS file. After I joined the "What Middletown Read" Access data to the GIS table, we ran the 'geocoding' application on the Muncie City Directory addresses. Geocoding is basically a feature of GIS which allows addresses to be matched to the map. However, much to my dismay, the first attempt to geocode resulted in only 4 out of 438 addresses matched. (On a side note, at the start of my project, I wished to have a larger span of patrons to map in order to show a better representation of where the people were coming from - but after I saw how many patrons there were in just these two weeks, I felt that was plenty to show a general pattern). Okay, so...the main problem with the geocoding was the fact that I didn't know the current ZIP codes of these patron's addresses. But after adding a new field to this GIS map's attribute table and trying a couple of different Muncie ZIP codes, I was able to match about half of the addresses to the map. For the remainder (the unmatched addresses) I will have to go through manually and enter the Book Borrower's Registry addresses [especially for the patrons who weren't listed in the directory] and match them that way. MORE TO COME!

§

2/28/07

I have a distinct sick feeling after I walk away from the library's Geospatial Center this morning. I was working on finishing manually matching/geocoding the addresses that I could (I ended up with over 300 matched and about 107 that I will have to research). *Unfortunately*, I forgot to click "save" before logging off my computer! Oh the frustration! At least Angie Gibson informed me of how to connect to my library folder from the

Cooper graphics lab (they have up-to-date GIS there - unlike elsewhere on campus - and is open more days/hours than Bracken's Geospatial Center). I'm starting to wonder how this project is going to turn out with so few weeks in the semester left...I need the three credit hours from my thesis in order to graduate! Now I've got myself all stressed-out again! I'd better get to class...

§

3/6/07

Finally! A sense of accomplishment whelms over me! I just got back from starting to manually pinpoint the addresses that the computer could not match (i.e. those that said things like: "corner of Jackson and Mulberry"). I already know that there will be some addresses which simply won't be able to be put on the map - such as the ones that are listed as: "Gilbert St". Obviously, the street will go on for miles and there's no way of telling where exactly on that strip the patron lived! I'm having problems with not being able to connect to my library folder (where the project is saved) from the Cooper Graphics Lab. I guess I will continue to work on that.

Meanwhile, the manual pinpointing is making me feel a real connection with these library patrons. For a semester and a half now, I've been working in the Genealogy Center on my fellowship. I've gotten to become quite familiar with the names/places/occupations of these people, and now with the old 1889 map of Muncie, I am able to visualize it all! The map is amazing (granted, I love old maps in general - I suppose that's the Geography major in me). It shows not only the street names I've become familiar with, but the places

of business, points of interest, locations of family property/farms. It all just seems so eerily familiar...as if I could have lived there before...

§

3/21/07

Well, I'm back from Spring Break now and it's time to get back at it! I just finished putting all the rest of the points that I could on the map using the Book Borrower's Registry addresses. I also inserted a library icon in the spot where the Muncie Public Library was (it wasn't on the corner of Jackson and Jefferson streets as is located today, but rather in the City Hall along with the fire station). There doesn't seem to be much of a distinct pattern of the readers - they seem to be pretty much evenly distributed throughout the old city of Muncie. I wonder what the implications of this are...

I guess all that's left for me to do now is to "prettify" the map - add some cool graphics, put some facts about the library on it, give it a title, and maybe do a few bios of some of the interesting patrons. Oh yeah! And I guess I'd better start writing the thesis too...

{post script} I forgot to write down all the street name changes I found throughout my process thus far. Here's what I found: (original street name → modern name)

Ohio→Burlington; Third→2nd; Second→1st; Denver→Monroe; First→Kirby;

Chestnut→Elm; Douglass→10th; Fremont→9th; Delaware→8th; Winton→11th;

Cypress→Elliott; Elmyra→10th; Winton→9th; Muncie/Middletown/Turnpike→Hoyt;

Michigan→7th; Florence→6th; Dover→7th; Virginia→High; Anthony→5th;

Wall→Seymour; Dumont→Seymour; Illinois→Kilgore; Pearl→Howard;

Willow→Howard; and Plum→Pershing.

§

3/27/07

I just returned from working on my map again, and I think I've officially proven how technologically un-advanced I am! I was having multiple problems trying to open the icon I had saved to represent where the old Muncie Public Library was (as well as having trouble saving the changes I made to the map). As it turns out, I was logged in under someone else's account! It always seems to be the most basic things that I overlook...oh well. Much thanks goes out to the helpful staff at the Geospatial Center!

My progress thus far was getting the library in the right place and adding a title. The map still needs quite a bit of work for it to look nice though. I've also started analyzing where the locations of the patrons are, and have come up with a couple reasons as to maybe why. I have a feeling there's much more research ahead.

§

4/1/07

I don't know what to make of my last visit to the Cooper Science Building's computer lab. I found pictures online of a few of the library patrons as well as some of the books that they borrowed, so naturally I wanted to include those in my final map.

Last Friday, I finally invested in a flash drive (I thought it would be easier this way to save changes to my map while going back and forth between Bracken's Geospatial

Center and Cooper's Graphics Lab). I went ahead and saved my project on it as well as the pictures of the patrons and books that I found.

Well, today I inserted some pictures into the map and added some text to describe in detail what the picture was all about (brief biographies of the people and the like). However, when I did this, the pictures enlarged and shrank when I zoomed in and out on the map, respectively; while the text did not. So when I zoomed out to the extent that I want for the final poster, the font size didn't adjust, making the text no longer fit inside the text-boxes I made. Furthermore, whenever I look at the layout view (the image showing what the map will look like when it's printed off) everything is all skewed and different - the map is cut off at an odd place, the rectangle I put around the title seems to have shrunk in size, and the font size problem again.

Tomorrow morning I'm going to go in for some professional help to hopefully get all of these bugs worked out.

§

4/2/07

Well, I would like to believe that all my efforts yesterday weren't a complete waste, but I ended up re-doing just about everything I managed to previously accomplish. At least I already knew what the text boxes were going to say.

I didn't realize that I had to enter my own breaks in at the end of each line of text to prevent it from becoming just one long line of words (there is so much that I must have forgotten since my Intro to GIS course!).

I did move the title from the data view to the layout page. It's easier this way since text in the data view tend to look about 10 times larger than what it's supposed to look like when it's printed off. I spoke with Angela Gibson, and she said it was also possible for me to print a smaller version of my poster-sized map to include in the written portion of my thesis. I've still got several more things to add to my map (images/text) before I'll look at it more closely and analyze my findings. Things are starting to come together.

§

4/3/07

I have a feeling that I'm almost done with my map. This is very exciting for me as I can't wait to see the final product in poster form! I would like to do some more research to see if I can find more pictures to add to the map. I'm afraid there isn't much more for me to say at this point - I will write again to tell of how the printing off of the giant plotter goes!

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4/12/07

The map is finished! I printed off a 24"x 36" poster and a 9"x 16" map to include in the written portion of the thesis (the use of the Geospatial Center's plotter will make a charge to my Bursar's account). I also added a legend and north arrow to the map which are necessities to every map as I learned in my cartography course. Although I did not show the modern streets of Muncie, I left the current representation of the White River on the map to show how I used it to georeference it with the 1889 map's White River. I did

the same georeferencing with the modern and old streets, but I felt that all the extra street names cluttered up the map, so I left the current streets off. All in all, I'm very satisfied with the turn-out of this project, and I hope that my efforts will contribute toward the goals of the Center for Middletown Studies – namely, the *What Middletown Read* undertaking.

Analyses

I suppose one of the most significant findings that the generation of this map has yielded, is that of the physical barrier which some of Muncie's old railroad tracks created. There were several different sets of tracks going from East to West which transected the town of Muncie into a northern and a southern half. The spatial distribution of the Muncie Public Library patrons shows a much higher concentration of residences north of the railroad tracks but south of the White River, and a much sparser scattering of patrons south of these tracks. This division might play a role in the different socioeconomic neighborhoods of Muncie. (i.e. since people north of the railroad tracks had better access to the library, the better educated they became) The Lynds were also mystified as to why some people belonged to the business class and others to the working class. At one point they suggested that "the mere fact of being born upon one or the other side of the watershed ... is the most significant single cultural factor tending to influence what one does all day long throughout one's life." Yet, at the point in history that the map that I've been using was made (1889), the town of Muncie did not extend past the southern bank of the White River. It is interesting to note how it is relatively common knowledge today (at least among current Muncie residents) that those of the higher socioeconomic bracket are found north of the White River, and those of a lower standing tend to be on the south side

of Muncie. Perhaps this original north-south polarization of those who had better access to literature versus those who did not, persisted through Muncie's history as it expanded across the river. In the Lynds second publication, *Middletown in Transition*, the map they provide for the mid-1930s clearly outlines 'Homes of Business Class' above the railroad tracks and north of the river and 'Homes of Working Class' south of the tracks. However, before I make too bold of a statement, the Lynds discovered in their study of Middletown that over 70% of Muncie's population was of a working class background, and I too have come across similar findings in my fellowship work. Through my research of Muncie Public Library patrons in the Muncie City Directories and 1900 Census records, I've found that quite a large number who are employed in blue-collar occupations.

The Lynds did discover something, however, that might correlate with the same distribution differences on either side of the railroad tracks that I found. It seems that the Ball brothers' mansions were located in nearly the entire area north and west of the railroad tracks, and were mapped in the Middletown studies as "Homes of the Business Class" (Lynd, 1929). It could be that these business class people who lived north of the tracks were more educated and more prone to read on a regular basis. Also, the west side, where all the large tracts of land were, may have something to do with the more wealthy land-owners.

The Middletown study also lists the area of large industry on the south side of the railroad tracks to be the concentration of the "Homes of the Working Class"(Lynd, 1929). Yet, it is to be remembered that the Lynds were studying a Muncie some thirty years after the era I am looking at. Before the 1920s, Muncie's urban growth was contained to the

north of the railroad tracks and south of the White River. This apparently is what allowed for the construction of the industrial sector on the available rural landscape (Bilger, 2005).

As previously stated, there is also a significant decrease in library patron density just to the west of Muncie. This can most likely be accounted for by the large tracts of land that were located there and owned by Muncie residents such as Joanna Sullivan, John Waterhouse, John Wright, Chas Kilgore, and the estate I chose to highlight, which was that of the Kirbys. Although none of the Kirbys borrowed books from the Muncie Public Library during the weeks I looked at specifically, the extensive information I found on Thomas Kirby offers an example of the same kind of profiling done in the What Middletown Read project. However, this particularly considerable amount of biographical facts is not commonly found among 'lesser-known' patrons.

No other early settler of Muncie has been more closely tied to the town and its growth than Thomas Kirby. His prominence as a citizen comes from having been one of Muncie's earliest settlers - when the town was known as "Outainink" and it was but a clearing in the vast woods. Outainink was the name given to the area by the few Indians left in this former town of the Delaware tribe. Kirby was naturally a member of the first mercantile firm of Muncie as well as a leader in almost all public enterprises. If a certain donation was to be raised for the construction of an object of a public nature (such as a turnpike or railroad) Thomas Kirby was always the first to be queried for investment; and he never refused a contribution. Although he was one of the first trustees elected in Delaware County, Kirby wasn't a politician nor did he aspire to obtain the public positions which he was entitled to (Heath, 1905).

Thomas Kirby was born in Stockbridge, Massachusetts on December 25, 1804. By age ten, he became an apprentice in a woolen factory. During that time, he attended school only in the winter, but it was his practical experience which helped him later on in life. In the fall of 1827, Kirby migrated to Richmond, Indiana where he accepted an occupation in his trade at the company 'Levinas King'. After a year of this, he began fur trading - namely deerskins. He also traded ginseng, of which he bought about six thousand pounds every year. At around the year 1829, Mr. Kirby traversed through the sparsely settled wilderness of eastern Indiana (on foot as well as on horseback) peddling goods for Stone & Co. of Dayton, Ohio. At this point, he brought back his first stock of merchandise to Muncie by ox teams. It wasn't until 1830 that Kirby officially moved to Muncie where he became involved in his mercantile business for five years. During this time, he acquired a large tract of land (the one shown in my map), retired from his business pursuits, and engaged fulltime to agricultural endeavors (Heath, 1905).

Thomas Kirby owned nearly one thousand acres in areas juxtaposed to Muncie and made six different additions to the town at various times. He also donated the grounds on which the Universalist and Presbyterian churches were erected. Kirby also sold lots and was well known as a kind hearted landlord. When developments would convince the purchaser that they could not meet their obligations, instead of foreclosing the mortgages, Kirby would refund the money already paid him, purchase the partially completed buildings at their actual cost, and sell the lots to some one else. He built the first brick store in Muncie, as well as a fine hotel which bore his name (Heath, 1905).

On July 15th, 1833, Thomas Kirby married Miss Sarah Tomlinson, a native of North Carolina, and the daughter of one of the first associate and probate judges of Delaware county (she was also the proprietor of the tract of land as shown on the map). She was an open-minded and noble woman who was quite rational and never acted upon any superstitions (as was common at the time). Together they had three sons and three daughters. Thomas and Sarah Kirby were members of the Universalist Church that they donated land to and were generally loved, respected, and honored by all who ever had the pleasure of their acquaintance. After they helped erect the new Presbyterian church in Muncie, a Kirby memorial window was placed in the church to honor the memory of Thomas Kirby and his donation of the plot of land. They were friends to the poor and brought hope to the dejected. It was not uncommon to see Mr. Kirby driving through the streets of Muncie with his carriage full of elderly men to whom he was giving an outing and showing the improvements of the city. Other times his carriage would be full of bareheaded children who would be having the happiest time of their lives. Wherever the Kirbys went, they brought an air of brightness. In all of Thomas Kirby's business career, he never sued anybody nor was he ever sued himself. He also made it a rule to never sign an agreement until after he had been alone and slept over the matter so his mind would be clear and he knew how to act. He was an enthusiastic supporter of every enterprise that promised good to his community. Thomas Kirby died August 19, 1879 at the age of 75. His wife Sarah died in 1899 at the age of 85 (Heath, 1905).

When it comes to early maps of Muncie, the most recognized name is Anton 'Tony' C. Hefel. Even though the map used in this project wasn't one of Hefel's (the map

shows no cartographer's name), he was still the town's most prominent surveyor and civil engineer.

Anton C. Hefel was perhaps best known as "Tony Hefel" and was a civil engineer with a wide and favorable reputation. He was a native of Austria, born in the town of Feldkirk, province of Voralberg on April 8, 1844. After attending the common schools of Feldkirk as well as engaging in a four year course at a normal school, Hefel was accepted into the well-known University of Munich in Bavaria, from which he graduated in 1864. Mr. Hefel had always had a natural propensity towards mechanics and shortly after his graduation from the university, he worked as a water works builder in Bavaria and also acted as the superintendent of construction in Augsburg. In 1866, at the age of twenty-three, Hefel relocated to the United States (Cincinnati, Ohio, specifically) where he again worked as a draughtsman for Cincinnati's water works. He was also engaged as an engineer and assistant superintendent for these water works. In the year 1868, Mr. Hefel married Miss Magdalena Good in Cincinnati. Together they reared their two children, Carrie and Ermine. In 1877, just eleven years after his arrival to the United States, Hefel moved once again; this time to Vandalia, Illinois. Here he was employed as Engineer in Chief for the Kaskaskia bottom drainage district. This job entailed the duties of making surveys and estimates for dredging, draining and reclaiming a large tract of land (twenty-five by forty-five miles in area) (Kemper, 1908). This was his principal occupation until 1886; and during those nine years, he was elected surveyor of Fayette County twice, entering the race both times as a candidate on the people's ticket (Bowen, 1894).

It was the end of 1886 that Mr. Hefel came to Muncie to accept a position at the American Water Works & Guarantee Company of Pittsburgh, Pennsylvania. Through this opportunity, he was able to act as superintendent of Construction and Engineer in Building Water Works and Plants at New Philadelphia, Ohio; Huntington, West Virginia; Sheboygan, Wisconsin; Meridian, Mississippi; and Wichita Kansas. His work in such a wide array of geographies, is what allowed Hefel to become one of the best known civil engineers in the country. His work included tasks such as constructing water works and building racetracks and sewers (Kemper, 1908).

In the year 1888, he made surveys and drawings for two maps of the city of Muncie. The first of which was known as 'Hefel's natural gas map' and showed gas wells, gas lines, additions, and the like; and was copyrighted and printed in colored lithograph. Both maps were extensively sold and are still commended for their accuracy, as well as for the neatness and skill displayed in the workmanship (Bowen, 1894).

In July of 1891, Mr. Hefel took a job offer of the Western Improvement company of Rochester, N. Y. to lay out and prepare drawings for the town of West Muncie. He did so, and the drawings were placed on record. The draft of West Muncie has been noted as displaying superior ability on the part of the engineer, the beautiful artificial lake and other improvements, which gave the place much more than a local notoriety, being the original design of Mr. Hefel (it is my only regret that I was unable to locate a copy of this rendering). Mr. Hefel was a skillful engineer and devoted his life to the profession which he was thoroughly familiar with. His abilities were obviously recognized by others through

the various responsible positions in companies and corporations which he was so often called to fill (Bowen, 1894).

Making the Map

To take on the project of mapping locations during the tail end of the 1800s, I needed a good map from this era - one which would show streets and buildings as they were at the time. Bracken library housed several different old maps of Muncie in its Archives and Special Collections and the Local History & Genealogy center downtown had a quite exquisite (albeit rather large) example of such a map. I chose the map I did for several reasons. There were a number of maps in Bracken which were laminated, or cut up into several parts and therefore would be exceedingly difficult to scan into a computer. The beautiful one at the Genealogy center was simply far too large to fit into the 48 inch scanner that Ball State's architecture building is in possession of. So with numerous contenders now out of the picture, it was relatively easy to make my map choice. The Muncie map of 1889 which I used showed many nice features. It had the old street numbers of buildings printed on the rectangular symbols representing these buildings. This was a very nice feature since address location was going to be my primary concern in the project. It also listed the names of certain landowners and important buildings/businesses within the city. The clear depictions of the railroad tracks definitely came in handy as I began to see the spatial distribution of the library patrons. After a small scanning fee, I soon had my map in a digitized version.

When I was enrolled in my Intro to GIS course way back in the fall semester of my sophomore year, I learned that careful planning was the essential key in order to successfully implement GIS in a project. I started my planning relatively far in advance of the actual undertaking of the project. I considered the goals, objectives, and purpose of the What Middletown Read project. I took the main intention of WMR to be the creation of accessible information on print culture history and reading habits of Middle America. This stage of planning allowed me to ensure that the final output would fit within the objectives of the What Middletown Read project. Next came the project proposal for which I received approval. I also learned in my GIS class that if one's plans are approved, the chances of generating a successful map are high.

The next step in the GIS process is to find a network – an aide, a professor (as was the case in my course), or anyone who will act as a support or who will give you feedback on your progress. I did run into a few dead ends with individuals who said they were interested in my project, but were nearly impossible to track down. Fortunately, Angela Gibson of Bracken's Geospatial Center and Map Collection acted as my support system. Her in-depth knowledge of GIS (she was a graduate of Ball State's geography program as well) helped me infinitely. The next step was to determine what data needed to be acquired. This was difficult because there are so many patrons entered into the WMR database already and deciding whose addresses to use would have been very thorny. Fortunately, the decision-making was actually made for me. Maria Staton, a What Middletown Read employee, was in charge of 'cleaning up' some data earlier in the semester (the library patronage of 11/12/1894 – 11/26/1894). This means she went

through the names in the WMR's Access database and double checked their Book Borrower's Registry and 1900 Census information. Once this was completed, Dr. James Connolly, the director of the Middletown Studies, uploaded this data onto the library's server so that Ms. Gibson and I could retrieve it and enter it into my GIS program.

Before I could put that data to use – plotting the address points, the scanned map needed to be georeferenced into the GIS program. This is done through a special GIS feature which allowed me to link certain points on my digitized 1889 map to the same points on the current Muncie map already programmed into the system. Since there was the issue of the roads having changed over the decades, the points that were linked were along the White River (which *has* undoubtedly altered its course over the years, but on a relatively minimal scale). After that, putting the addresses on the map was a rather simple procedure via geocoding and manual plotting. That is, simple in spite the few entanglements and glitches I came across which I've previously mentioned. Adding the pictures and texts was nothing more than doing a little extra research and more or less 'copying and pasting' into the program. Once again, after a small fee, I had my two maps (one large and one small) printed off and ready to go.

Endnotes

I believe that the creation of this map is of great importance to the What Middletown Read project. It shows a slightly greater density of library patrons on the north side of Muncie – where the Lynds indicated the business class resided (and therefore quite possibly had more leisure time with which to read). In saying thus, future users or

employees of the WMR project will be able to assume the likelihood of a patron's certain social standing just by looking at his/her address.

Visualizing places and the way they evolve is a fundamental part of what planners, urban designers, landscape architects, and geographers do. GIS allows for the visualization of the history of landscape changes. GIS enables users to see spatial change over time and explore economic, cultural, and political contexts. In a historical aspect, GIS can be educational in and of itself, forcing in-depth investigations of community history. These elements of GIS dovetailed quite nicely with the project I took on. Through the investigation of Muncie's library patrons in the 1890s, it is possible to draw some conclusions on what type of people lived where as well as perhaps why they did so. By looking at the past, planning for the future becomes more rational and useful. I only hope, that in my visual representation of a bygone era in Middle America, I will be able to spark some curiosity and invoke a desire to discover more about Middletown and continue its legacy of being one of the most examined towns. Perhaps my luck will kick in once again, and this wish will be fulfilled.

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